### CS50 AP Alternative Assignments to Pi

All programs should be done in Java/Eclipse

# 29 (S)

Write a Java program that spells your name backwards by reading the string with your FULL name in it from right to left. Indexer MUST move from length to 0.

### 30 (S)

Write a java program that calculates the perimeter of a dodecahedron with side lengths of N, where N is a random number from 1 to 40. Then calculate the area of each interior angle. Print out the results in full sentences.

**31 (S)** Write a java program that fills a  $10 \times 10 \times 20$  dimensional array with random numbers, then calculates the average value of all the entries in the array.

### 32 (L) Exam Grade

Write a Java program that counts backwards from a (random number from 0 to 100) by (other random number from 1 to 5). For example, if first random number is 45 then 3, it would count backwards from 45 to 0 by 3.

Printout would look EXACTLY like this: (Assume random numbers are as depicted for exemplar) [Black Bold letters are exact output using your generated numbers]

Random Number 1: 45

Random Number 2: 3

45, 44, 43, 43, .... 36

35, 34, 33, 32, ....26

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....

# **Run Complete**

[you print no more than 10 numbers per line]